



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OW-2019-0415; FRL-10000-02- OW]

Water Quality Trading under the National Pollutant Discharge Elimination System Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notification, request for comment.

SUMMARY: The Environmental Protection Agency (EPA) is requesting comment on policy approaches for addressing “baseline” issues in watersheds with EPA-approved Total Maximum Daily Loads (TMDLs) where policy makers would like to pursue water quality trading as a regulatory option for National Pollutant Discharge Elimination System (NPDES) permit compliance. These policy approaches may also be of interest to stakeholders pursuing market-based water quality improvement programs outside of the NPDES permit program.

DATES: Comments must be received on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. A combined in-person and online listening session will be held at EPA Headquarters in Washington, DC on October 21, 2019, from 12 p.m. to 5 p.m. EDT.

ADDRESSES: The listening session will be held at the following location:

- US EPA Headquarters, William Jefferson Clinton East Building, Room 1153, 1201 Constitution Avenue NW, Washington, DC 20004;
- The online listening session will be accessible at <https://www.epa.gov/npdes/nonpoint-source-baselines-water-quality-trading>.

To register for the listening session, go to: <https://www.epa.gov/npdes/nonpoint-source-baselines-water-quality-trading>.

Submit your comments, identified by Docket ID No. EPA–HQ– OW–2019-0415, at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Amelia Letnes, Office of Wastewater Management, Water Permits Division, Mail Code 4203M, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 564-5627; email address: letnes.amelia@epa.gov.

SUPPLEMENTARY INFORMATION: This supplementary information section is organized as follows:

- I. General Information
- II. Background
- III. Nonpoint Source Baselines for Water Quality Trading
- IV. Request for Comment

I. General Information

A. Does this action apply to me?

Entities potentially affected by this action are: authorized NPDES states, territorial, and tribal programs; municipal and industrial point sources; and nonpoint sources of pollution. This table is not intended to be exhaustive; rather, it provides a guide for readers regarding entities that this action is likely to affect.

TABLE I-1—ENTITIES POTENTIALLY AFFECTED BY THIS ACTION

Category	Examples of potentially affected entities
The Environmental Protection Agency	The Environmental Protection Agency when acting as a permitting authority, conducting oversight, and enforcing permits.
State, Territorial, and	States and territories authorized to administer the National

Category	Examples of potentially affected entities
Indian Tribal Governments	Pollutant Discharge Elimination System (NPDES) permitting program (permitting authorities); states, territories, and Indian tribes that provide certification under section 401 of the Clean Water Act (CWA); states, territories, and Indian tribes that own or operate treatment works.
Municipalities	Publicly Owned Treatment Works (POTWs), municipal separate storm sewer systems (MS4s), or other municipal entities required to apply for or seek coverage under an NPDES individual or general permit.
Industry	Facilities required to apply for or seek coverage under an NPDES individual or general permit.
Nonpoint Sources	Facilities that are not required to apply for or seek coverage under an NPDES individual or general permit but may generate pollutant reduction credits.

If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under FOR FURTHER INFORMATION CONTACT.

B. Public Listening Session

i. *Public Listening Session:* The EPA will hold a public listening session to hear feedback from interested members of the public on the issues and concerns of which the Agency should be aware concerning the issues presented in this document. The public listening session will include the ability to make a statement either in person or online in addition to any official comments. All official comments must be submitted in writing at <https://www.regulations.gov/>. The public listening session will begin with the EPA providing a brief background on the water quality trading issues discussed in this document, followed by an opportunity for the public to provide supplemental input on these issues. The EPA is asking that oral statements be limited to three minutes or less. The listening session will begin at 12 p.m. EDT and continue until all those wishing to speak have had a chance to make statements, or until 5 p.m., whichever comes first. A transcript of oral remarks made during the listening session will be at <https://www.epa.gov/npdes/nonpoint-source-baselines-water-quality-trading> and included in the docket for public review.

ii. *Additional Information and Public Meeting Registration*

Prior to each listening session, the EPA will post any relevant materials to the following website: <https://www.epa.gov/npdes/nonpoint-source-baselines-water-quality-trading>. Information posted to the website will include any handouts that may be provided at the meeting as well as a web link that participants may use to register for the listening session in advance. Advance registration is not required but is requested so that the EPA can ensure there is sufficient space and time

allotted for those who wish to participate. The listening session will continue until all speakers in attendance have had a chance to make statements, or the listed end time, whichever comes first. If you choose not to pre-register to speak, it is recommended that you arrive at the start of the listening session to register in person to ensure the opportunity to participate.

II. Background

The EPA strongly supports market-based mechanisms to accomplish its mission to protect human health and the environment. Market-based mechanisms include water quality trading, an approach that promotes water quality improvements at lower cost than more traditional regulatory approaches. The Agency has long interpreted the CWA to allow pollutant reductions from water quality trading and offsets to achieve compliance with CWA regulatory requirements including water quality-based effluent limitations (WQBELs). Neither the CWA nor the EPA's implementing regulations explicitly address water quality trading. In the absence of explicit statutory language or regulations, the EPA has provided guidance for permitting authorities and stakeholders to consider when developing market-based programs, including water quality trading. However, the EPA is aware that despite its efforts to support these types of programs, they have not been implemented to their fullest potential. In response, the Agency is exploring ways to expand the implementation of water quality trading and other market-based mechanisms to accomplish water quality improvements.

In 2003, the EPA issued its Water Quality Trading Policy¹ (2003 Policy). The 2003 Policy included recommendations for permitting authorities and stakeholders to consider when developing water quality trading programs. The Agency issued the Water Quality Trading Toolkit for Permit Writers in 2007 and updated it in 2009² (2009 Toolkit) to expand on the 2003 Policy and provide real-life examples. The EPA understands that some permitting authorities and stakeholders have viewed the 2003 Policy and 2009 Toolkit as having the force and effect of law or regulation, i.e., mandating certain actions or outcomes and containing standards or requirements with which a market-based program must conform. The Agency wants to clarify that the 2003 Policy and the 2009 Toolkit do not mandate specific actions, outcomes or requirements; but rather provide non-binding and non-mandatory recommendations and guidance for permitting authorities to consider when establishing and implementing water quality trading programs for NPDES permit compliance.

In the intervening fifteen years since the release of the 2003 Policy, nonpoint source pollution reduction technologies and practices have improved. Research has provided better information on the performance of many best management practices (BMPs). Mapping and modeling efforts have become more robust. Capabilities for evaluating resources at the edge-of-field and at the landscape scale have improved. In-stream and other monitoring approaches have expanded our understanding of the resources we are working to protect. These advances have created an opportunity for the Agency to reconsider and, if appropriate, update and expand its recommendations for policy makers considering implementing market-based mechanisms, including water quality trading.

¹ This document is available at https://www.epa.gov/sites/production/files/2016-04/documents/wqtradingtoolkit_app_b_trading_policy.pdf.

² This document is available at <https://www.epa.gov/npdes/water-quality-trading-toolkit-permit-writers>.

As a first step to modernizing its approach to market-based programs, the EPA issued “Updating the Environmental Protection Agency’s (EPA) Water Quality Trading Policy to Promote Market-Based Mechanisms for Improving Water Quality” on February 6, 2019 (2019 Memorandum).

The 2019 Memorandum reiterates the EPA’s strong support for water quality trading; promotes the adoption of market-based programs to incentivize the implementation of technologies and practices to reduce nonpoint source pollution; provides additional guidance and policy options to stakeholders for developing and implementing market-based programs; and promotes increased investment in conservation actions. To achieve these goals, the 2019 Memorandum identified six market-based principles:

- 1) States, tribes, and stakeholders should consider implementing water quality trading and other market-based programs on a watershed scale.
- 2) The EPA encourages the use of adaptive management strategies for implementing market-based programs.
- 3) Water quality credits and offsets may be banked for future use.
- 4) The EPA encourages simplicity and flexibility in implementing baseline concepts.
- 5) A single project may generate credits for multiple markets.
- 6) Financing opportunities exist to assist with deployment of nonpoint source land use practices.

This document is the next step in modernizing the EPA’s approach to market-based programs and water quality trading and focuses on the fourth principle in the 2019 Memorandum—simplicity and flexibility in implementing baseline concepts. The EPA’s interpretation of the

2003 Policy, as provided in the 2009 Toolkit, recommended that individual nonpoint sources were to make their portion of the reductions identified in a TMDL as the “load allocation,” called the “baseline,” before nonpoint source pollution reduction activities could generate credits or offsets. In many TMDLs, the load allocation/baseline is not an insubstantial portion of reductions necessary in the watershed; achieving this level of reduction may be costly and a barrier to entry to a trading or offset market. The EPA is seeking and will consider comments on proposed recommendations related to baselines for nonpoint sources in watersheds covered by a TMDL.

The EPA is proposing to provide additional guidance on several of the market-based principles identified in the 2019 Memorandum. This proposal seeks comment on additional draft guidance related to nonpoint source baseline issues and presents a variety of tools and approaches that could be used to develop and implement nonpoint source trading baselines. Lastly, the EPA is seeking comment on other topics addressed in the 2003 Policy and the 2009 Toolkit that should be clarified, updated, or otherwise modified to be consistent with the 2019 Memorandum.

III. Nonpoint Source Baselines for Water Quality Trading

The EPA has developed and is seeking comment on a variety of policy options regarding nonpoint source baselines for water quality trading in areas with a TMDL. These options can be used individually or combined in a single program. Some of these options would be changes to existing policy, while others offer additional clarification.

A. Definition of Baseline

As previously noted, neither the CWA nor the EPA's implementing regulations address water quality trading generally, or the specific issue of nonpoint source baselines. In the absence of explicit statutory language or regulations, the EPA provided guidance for permitting authorities and stakeholders to consider when developing market-based programs, including water quality trading.

As described above, the 2003 Policy and 2009 Toolkit recommended an approach to defining a nonpoint source baseline in a watershed where a TMDL has been approved or established. That approach could lead to substantial upfront costs for nonpoint sources despite no regulatory requirement mandating those reductions. The baseline portions of the 2003 Policy were seen by some stakeholders as confusing, complex and restrictive, creating a barrier to entry for point source-nonpoint source trading in watersheds where a TMDL has been approved by the EPA. Another concern is that expecting a nonpoint source to meet a pollutant reduction baseline derived from a TMDL load allocation *before* the nonpoint source can generate tradable credits may be inconsistent with the definition of baseline in the 2003 Policy. This is because load allocations on their own are not legally enforceable pollutant control "requirements." As a result, such load allocation baselines should not be considered to be "requirements" that must be met by the nonpoint source prior to being able to generate credits for sale into a market. The EPA is seeking comment on the above concerns and whether the following proposed baseline definition revision would provide clarity and flexibility to states and tribes to define a nonpoint source baseline and ensure that market-based programs and water quality trading may be implemented in watersheds with EPA-approved TMDLs.

The EPA is considering whether to include the language below in an updated policy memorandum on water quality trading.

B. Baselines for Water Quality Trading.

The EPA recommends that pollution reduction credits that are applied to water quality-based effluent limitations in NPDES permits be derived from and comply with all applicable water quality standards and be consistent with the assumptions and requirements of wasteload allocations in applicable EPA-approved TMDLs, consistent with 40 CFR 122.44(d)(1)(vii).

For point source-nonpoint source trading, where a TMDL has been established for the particular waterbody, the EPA recommends that nonpoint sources be allowed to generate credits for any pollutant reductions the nonpoint source makes that are not included in the assumptions that support the TMDL load allocation. Under this revised baseline definition, any such pollutant reductions would be immediately available for use by point sources as credits.

The EPA seeks comment on whether this language provides the clarity necessary to support market-based programs, including water quality trading, and whether there is other language that may provide greater clarity or regulatory certainty. The EPA intends that, in watersheds where a TMDL has been approved by the EPA, this definition of “baseline” would allow for individual nonpoint sources to generate pollutant reduction credits for any pollutant reduction above existing practices, provided there is a reasonable assurance that the overall load allocation will, over time, be met. Stated differently, nonpoint sources may not need to apply pollution controls to meet a baseline derived from a load allocation before pollutant reduction credits could be generated. This option is intended to encourage stakeholders to make progress towards meeting water quality standards while allowing credits to be generated without unnecessary delay.

This approach assumes that: (1) the TMDL, its implementation plan or other documentation describes plans to achieve the TMDL's load allocation, and (2) the reductions that a nonpoint source makes to generate credits are in addition to reductions described in such plans to achieve the load allocation. If the state, territory, or tribe desires increased certainty that the overall load allocation will be met under this approach, it might provide a greater level of detail in its implementation plan to ensure a greater commitment to achieving the load allocation. Policy makers and permitting authorities may conclude that modifying a TMDL implementation plan may be necessary to provide additional flexibility to prioritize specific areas of the watershed for reductions; to describe a specifically-identified pollutant reduction project (such as the Dixie Drain Phosphorus Removal Facility in Idaho³); or to implement other watershed-wide plans for meeting the TMDL.

In most cases, the EPA assumes that point source-nonpoint source water quality trading would represent a relatively small portion of the total loadings under a TMDL. The EPA solicits comment on the potential environmental and policy impacts – positive or negative – of the proposed change to the nonpoint source baseline definition at large volumes and over larger geographic areas. The EPA solicits comment on the proposed language and the assumptions articulated above, and on whether pollutant reductions used to generate credits could also be used to achieve a TMDL load allocation.

C. Incremental Baseline

As described above, the EPA is requesting comments on additional recommendations to provide additional flexibility for permitting authorities whereby nonpoint sources may not need to apply pollution controls to meet a baseline derived from a TMDL load allocation before pollutant

³ For additional information on the Dixie Drain Phosphorus Removal Facility see <https://www.livboise.org/initiatives/dixie-drain>.

reduction credits could be generated. Alternatively, permitting authorities might consider an incremental approach. An incremental baseline approach divides nonpoint source reductions into (1) immediately available tradeable credits, and (2) reductions assigned towards meeting the load allocation. The state, territory, or tribe would identify the appropriate ratio between the two types of reductions.

This ratio could be directly aligned with the reductions anticipated in the TMDL load allocation, or it could be based on an alternate policy goal. The concept could be analogous to a mortgage payment divided between principal and interest. Some of the pollutant reductions would be applied to meeting the load allocation and some of the pollutant reductions would be applied to generate credits.

Variations on an incremental approach could address alternate policy goals by establishing a variable percentage on bases such as:

- Creating incentives for nonpoint source reductions in certain areas of a watershed;
- A nonpoint source's existing BMPs; or
- A community's ability to pay.

Under these variations, some nonpoint sources might generate more credits than others based on factors such as geography, existing BMPs, or availability of trading partners.

As in all trading scenarios, a point source would need to make sufficient reductions to meet its WQBEL. This can be through onsite controls (a non-trading approach), through the purchase of credits (water quality trading), or through a combination of the two approaches. If there are insufficient credits immediately available, this approach might, where appropriate, be coupled

with a compliance schedule as described below. The EPA solicits comment on the incremental baseline approach described in this document and if it could be a useful tool for policy makers and permitting authorities to implement market-based programs, including water quality trading.

D. Compliance Schedules

Where the appropriate criteria under 40 CFR 122.47 are met, a permitting authority has the discretion to include a schedule of compliance with a WQBEL in an NPDES permit. Under this policy option, a permitting authority might consider including a compliance schedule in the permit to account for the time it would take for a nonpoint source partner to generate sufficient pollutant reduction credits or offsets to achieve compliance with the NPDES permit WQBEL. For example, an NPDES permit might provide a schedule for a point source permittee to arrange for a nonpoint source to install BMPs necessary to generate pollutant reduction credits sufficient to offset reductions required by WQBEL. A compliance schedule would need to specify the achievement of these reductions “as soon as possible” (see 40 CFR 122.47(a)(1)). While the types of activities/BMPs leading to nonpoint source pollutant reductions during the compliance schedule might differ in a trading scenario from those undertaken by a point source in a non-trading scenario, the regulatory requirements for a permittee to qualify for and the authority to establish a compliance schedule would remain the same under either scenario.

The EPA solicits comment on whether the use of compliance schedules could be a useful tool for policy makers and permitting authorities to implement market-based programs, including water quality trading.

E. Water Quality Standard (WQS) Variances

A WQS variance is a time-limited designated use and criterion for a specific pollutant(s) that reflects the highest attainable condition of a waterbody during the term of the WQS variance. A WQS variance is a WQS that is subject to review and approval by the EPA under section 303(c) of the CWA. States and tribes might consider whether in appropriate cases, a WQS variance might be used to support a market-based program, including water quality trading.

A WQS variance might be appropriate in those circumstances where it is not clearly known how or if a point source can buy enough pollutant reduction credits from nonpoint sources to meet its WQBEL. In that circumstance, a WQS variance might be designed to ensure that at the end of the WQS variance, enough pollutant reduction credits would be generated by nonpoint sources to meet the point source's WQBEL, based on the terms of the WQS variance.

For example, a state, territory, or authorized tribe might identify in the WQS variance a quantifiable interim effluent condition that reflects the greatest pollutant reduction achievable (40 CFR 131.14(b)(1)(ii)(A)(2)) by a combination of point source control and funding of nonpoint source reductions. The state, territory, or authorized tribe might collect funds from the point source(s) to pay for nonpoint source reductions needed to achieve the highest attainable condition in the WQS variance. Alternatively, the point source might enter into binding agreements with nonpoint sources directly. In this situation, the reductions made to achieve the highest attainable condition could first be credited to the point source, and then applied to the nonpoint source load allocation.

As another example, the point source might be able to identify and fund implementation of nonpoint source reductions as part of the adopted and legally binding pollutant minimization program (PMP) that would be a required part of the highest attainable condition under 40 CFR 131.14(b)(1)(ii)(A)(3) (where no additional feasible pollutant control technology can be

identified). In this case, the point source maintains an existing level of treatment, and the activities necessary to achieve nonpoint source reductions would be part of the adopted PMP. At the WQS variance reevaluation period (which is required at least every five years for any WQS variance longer than five years), the state, territory, or authorized tribe would determine if there are additional nonpoint source reduction activities to incorporate into the permit.

The EPA solicits comment on whether the use of WQS variances in this context could be a useful tool for policy makers and permitting authorities to implement market-based programs, including water quality trading.

F. Alternative Approaches to Disaggregation

Generally, TMDL load allocations are identified very broadly, covering entire sectors, or even having a single load allocation for all nonpoint sources in the watershed. The EPA recommends that states, tribes, and territories consider whether it is appropriate to apply these broad load allocations uniformly across the watershed or, instead, apply it differentially to nonpoint sources on a geographic basis or some other basis within the watershed to maximize water quality improvements. Examples of options that policy makers and permitting authorities may consider include:

- Reductions of nonpoint source pollution at certain locations within the watershed will result in reductions sufficient to meet the TMDL load allocation (e.g., at the headwaters of streams or along the shoreline of the impaired waterbody). Under this scenario, because the entire load allocation would be met by reductions in a certain segment of the watershed, nonpoint sources in other areas of the watershed could be free to generate credits immediately because reductions from those sources are not needed to meet the load allocation.

- A group of nonpoint source pollutant reduction practices will meet the load allocation and any pollutant reduction activities beyond those practices are eligible to generate credits. This option addresses equity concerns that might prevent early actors from making early reductions.
- Specific nonpoint source sectors (e.g. agriculture, silviculture, rangeland) may need different levels of reductions to meet the overall load allocation.
- A treatment facility installed on a polluted waterway segment (as was done in Idaho on the Dixie Drain) may make sufficient reductions through wastewater treatment to achieve the load allocation.

The EPA recommends that any alternate approaches that states decide to adopt should be clear, transparent, and demonstrate that the overall planned reductions in the watershed are sufficient to meet the overall TMDL allocations for the watershed. The EPA solicits comment on whether these are viable and appropriate options and whether additional or alternate approaches may also be appropriate.

G. In-Lieu Fee Program

An in-lieu fee program might allow NPDES permitted facilities to meet their WQBELs by paying into a state, territorial, or tribal fund specifically allocated for nonpoint source pollutant loading reductions. The state, territory, or tribe might use this funding, possibly combined with other state, territorial, tribal, or federal funds, to implement nonpoint source BMPs in the relevant geographic area. In-lieu fee programs might be based on a payment of a uniform fee, or payment of varying fees (established in increasing tiers) to:

- Incentivize onsite as well as offsite reductions;

- Provide equity for early actors;
- Address affordability;
- Address geographic disparities; or
- Address any relevant environmental justice concerns.

The in-lieu fee could be set at a level slightly higher than necessary for the state, territory, or tribe to fund the BMPs needed to generate the required credits to cover the administrative costs of running the program, insure against risk, and enhance overall environmental benefit.

To ensure water quality protection and progress towards meeting TMDL goals, the state, territory, or tribe could use these funds to pay nonpoint sources to implement pollutant reductions or to support other activities that would reduce overall nutrient loading in the TMDL watershed. A reverse auction model could maximize reductions per dollar. In a reverse auction, the buyer (the state, territory, or tribe) could offer a price it would pay for a specified pollutant reduction, and whomever is willing to produce that reduction (the credit) accepts the offer. If the offer is not sufficient to cover credit generation costs, generally no one would make a bid, and the buyer would offer a higher bid until it has found a willing generator of a sufficient amount of credits. This approach could keep costs down and offer flexibility if the true cost of credit generation rises.

The EPA solicits comment on the concept of an in-lieu fee program and whether it could be a useful tool for policy makers and permitting authorities to implement market-based programs, including water quality trading. The EPA also solicits comment on examples of existing in-lieu fee programs that are used to achieve environmental improvements and if there are specific programmatic components that may enhance water quality improvements.

IV. Request for Comment

The EPA is considering modifying or clarifying existing EPA policy and guidance on water quality trading to remove unnecessary barriers and better support market-based mechanisms, including water quality trading, consistent with the 2019 Memorandum. The EPA is requesting comment from states, tribes, stakeholders and other members of the public on all aspects of this document. In particular, the Agency is requesting comment on:

- The proposed approaches described in Section III of this document, including preferences between the approaches and the recommended mechanisms to implement those approaches;
- Other policy ideas or enhancements that could help promote or facilitate market-based programs to improve water quality; and
- Other aspects of the 2003 Policy and the 2019 Memorandum (including potential conflicting or ambiguous policy advice) that may benefit from additional policy or clarification from the EPA.

Dated: September 4, 2019.

David P. Ross,

Assistant Administrator, Office of Water.

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